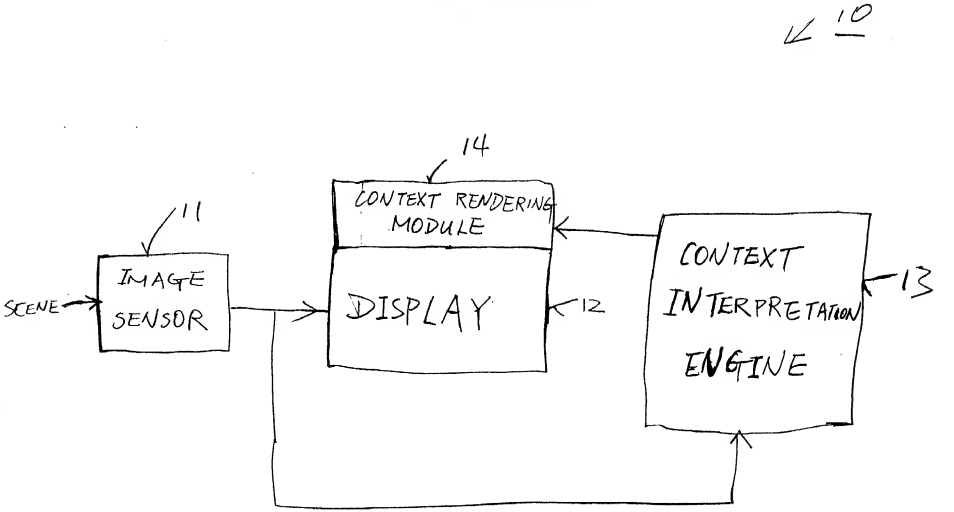

FIGURE 1

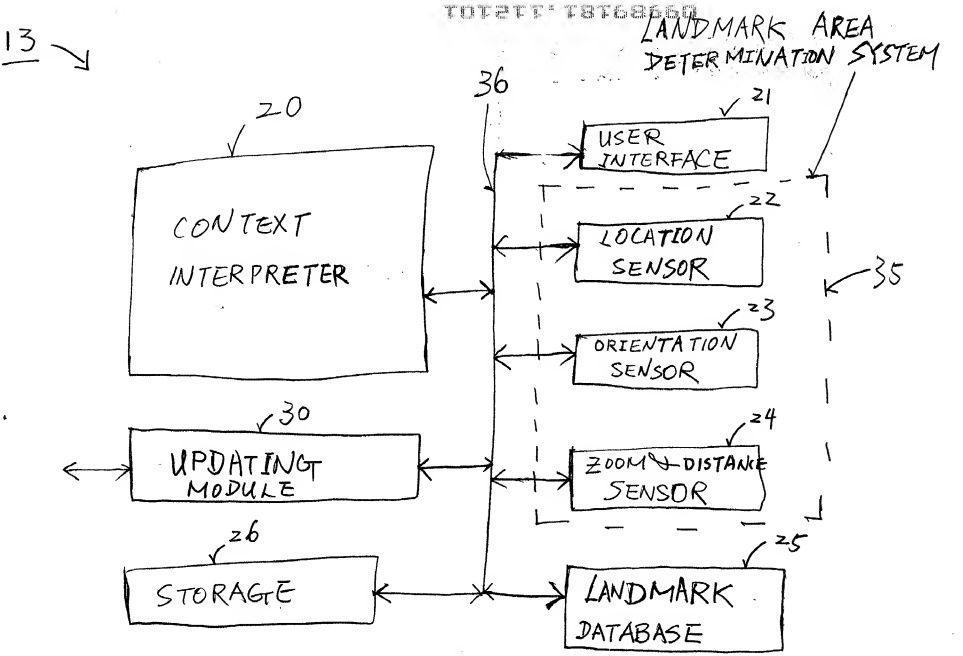
13
LANDMARK AREA DETERMINATION SYSTEM
36
20
21
USER INTERFACE
CONTEXT INTERPRETER
22
LOCATION SENSOR
35
23
ORIENTATION SENSOR
30
UPDATING MODULE
24
ZOOM DISTANCE SENSOR
26
25
STORAGE
LANDMARK DATABASE

FIGURE 2

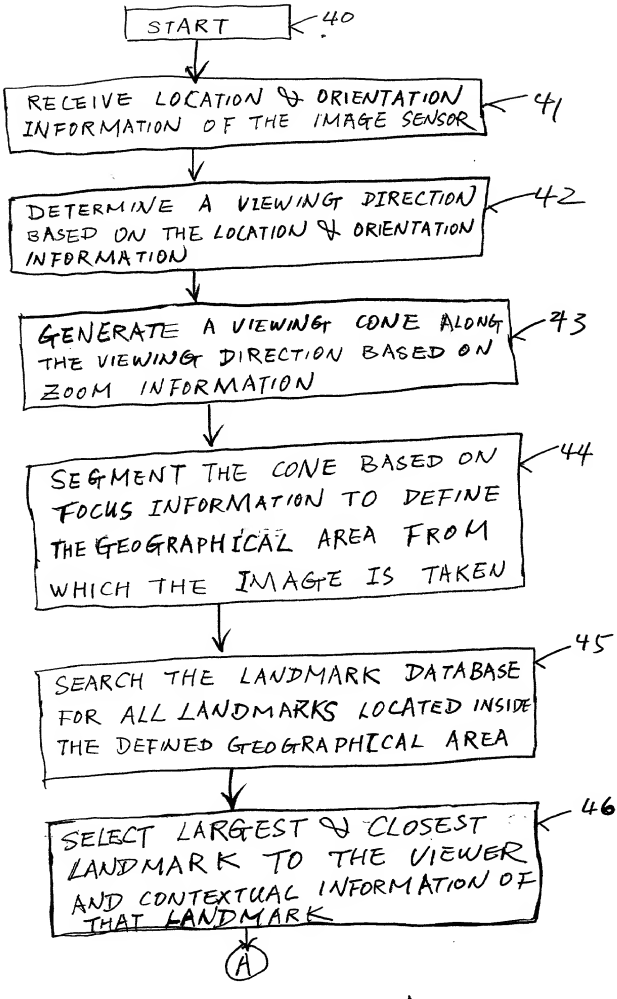
START
40
RECEIVE LOCATION & ORIENTATION INFORMATION OF THE IMAGE SENSOR
41
DETERMINE A VIEWING DIRECTION BASED ON THE LOCATION & ORIENTATION INFORMATION
42
GENERATE A VIEWING CONE ALONG THE VIEWING DIRECTION BASED ON ZOOM INFORMATION
43
SEGMENT THE CONE BASED ON FOCUS INFORMATION TO DEFINE THE GEOGRAPHICAL AREA FROM WHICH THE IMAGE IS TAKEN
44
SEARCH THE LANDMARK DATABASE FOR ALL LANDMARKS LOCATED INSIDE THE DEFINED GEOGRAPHICAL AREA
45
SELECT LARGEST & CLOSEST LANDMARK TO THE VIEWER AND CONTEXTUAL INFORMATION OF THAT LANDMARK
46
A

FIGURE 3A

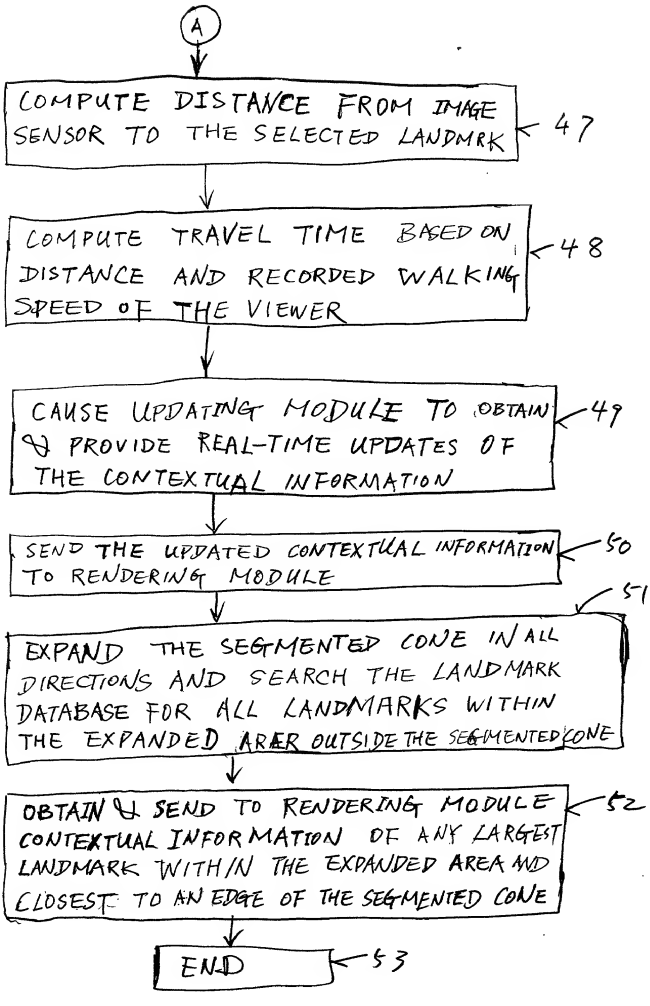
A
COMPUTE DISTANCE FROM IMAGE SENSOR TO THE SELECTED LANDMRK
47
COMPUTE TRAVEL TIME BASED ON DISTANCE AND RECORDED WALKING SPEED OF THE VIEWER
48
CAUSE UPDATING MODULE TO OBTAIN & PROVIDE REAL-TIME UPDATES OF THE CONTEXTUAL INFORMATION
49
SEND THE UPDATED CONTEXTUAL INFORMATION TO RENDERING MODULE
50
51
EXPAND THE SEGMENTED CONE IN ALL DIRECTIONS AND SEARCH THE LANDMARK DATABASE FOR ALL LANDMARKS WITHIN THE EXPANDED AREA OUTSIDE THE SEGMENTED CONE
OBTAIN & SEND TO RENDERING MODULE CONTEXTUAL INFORMATION OF ANY LARGEST LANDMARK WITHIN THE EXPANDED AREA AND CLOSEST TO AN EDGE OF THE SEGMENTED CONE
52
END
53

FIGURE 3B

30

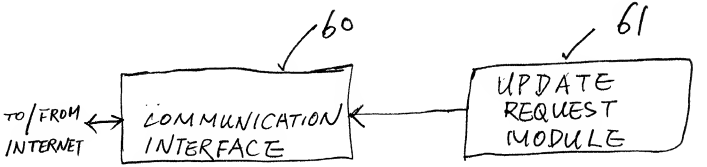

FIGURE 4

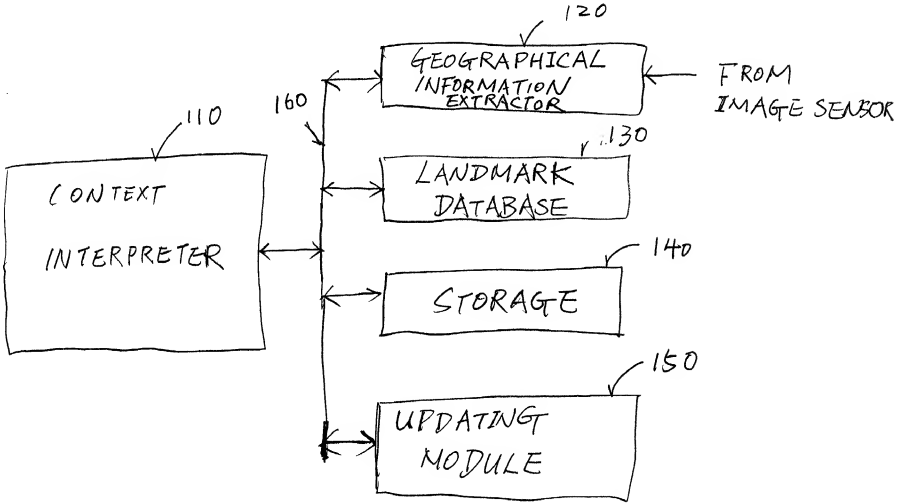

FIGURE 5

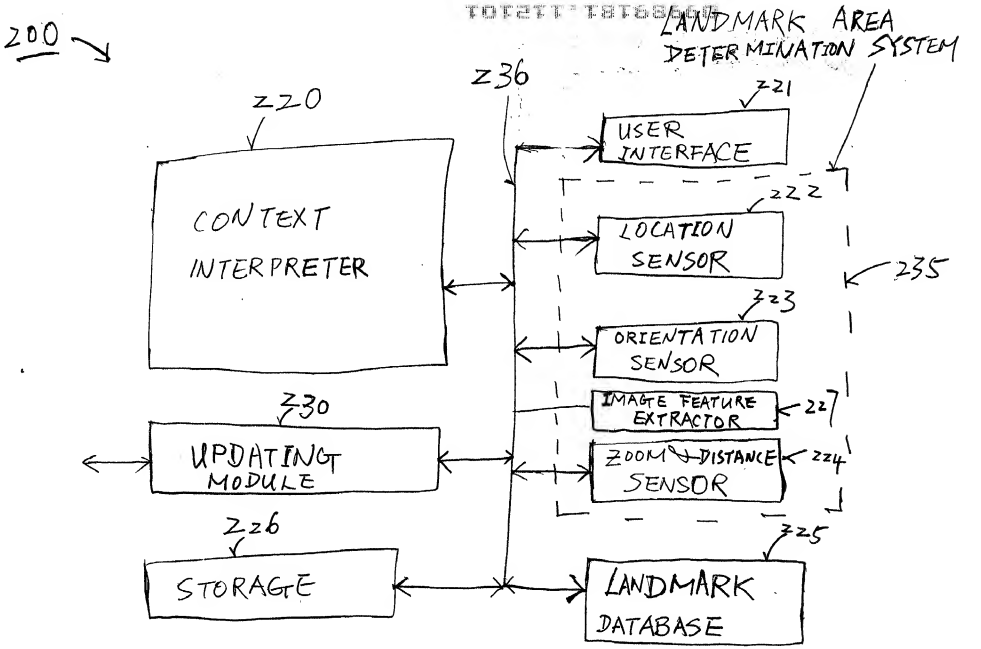
200
LANDMARK AREA DETERMINATION SYSTEM
236
220
CONTEXT INTERPRETER
221
USER INTERFACE
222
LOCATION SENSOR
235
223
ORIENTATION SENSOR
IMAGE FEATURE EXTRACTOR
227
230
UPDATING MODULE
ZOOM DISTANCE SENSOR
224
226
STORAGE
225
LANDMARK DATABASE

FIGURE 6